



A661 Vacuum type elemental analyzer

Application areas

Ore analysis, alloy detection, harmful element detection (RoHS, halogen), full element analysis, coating thickness measurement analysis. X-ray fluorescence spectrometer analysis has the advantages of simple sample preparation, fast analysis speed, wide analysis content range, good reproducibility, and high accuracy. With the continuous promotion of X-ray fluorescence spectrometry analysis technology, X-ray fluorescence spectrometer analyzer detection has been It has become the main means of quality control in many industries.



Instrument configuration

- ▶ High-resolution SDD silicon drift digital multi-channel electric cooling detector product repeatability test;
- ▶ High-efficiency ultra-thin window high-power X-ray tube;
- ▶ Signal to noise ratio enhancer;
- ▶ Signal detection electronic circuit;
- ▶ Computers and printers;
- ▶ Automatic switching collimator filters;
- ▶ High vacuum systems;
- ▶ High and low voltage power supplies;

Technical Parameters

- Elemental analysis range: sodium (Na) ~ uranium (U)
- Analysis element content range: PPM ~ 99.99% (different materials, different analysis ranges) any number of selectable analysis and identification models
- Independent matrix effect correction model
- Multivariable nonlinear regression procedures
- Ambient temperature: 15-30°C
- Simultaneous analysis of elements: dozens of elements can be analyzed simultaneously
- Test time: 50-200s
- Power supply: AC 220V±5v, it is recommended to configure AC purified regulated power supply
- Energy resolution: 129±5eV
- Sample chamber size: 400*340*80mm
- Instrument size: 700*510*336mm
- Instrument weight: 56kg
- Analytical accuracy: 0.05% (high-quality products with a content higher than 96%, stability tested 21 times)

Performance advantages

- ◆ Down-illumination type: can meet the testing needs of samples of various shapes and states, and can conduct rapid non-destructive testing of solids, liquids and powders;
- ◆ High-resolution electronic refrigeration detector: good energy linearity, energy resolution and energy spectrum characteristics, the latest digital multi-channel technology, faster testing speed and higher testing accuracy;
- ◆ New generation of high-voltage power supply and X-ray tube: high-efficiency ultra-thin window X-ray tube, the index has reached the international advanced level, low-energy X-ray excites the sample to be tested, and has better excitation effect on light elements such as aluminum, silicon, and phosphorus;
- ◆ Intelligent vacuum system: shields the influence of air and greatly expands the instrument testing range;

Sample repeatability test							
Number of tests	Cu含量(%)	Pb含量(%)	Fe含量(%)	Ni含量(%)	Al含量(%)	Sn含量(%)	Zn含量(%)
1	59.1025	1.3977	0.2576	0.2283	0.1824	0.0277	38.7176
2	59.2351	1.3956	0.3378	0.2194	0.1923	0.0296	38.6978
3	59.1821	1.3136	0.2776	0.1849	0.2125	0.0136	38.6776
4	59.2367	1.3023	0.2958	0.2012	0.2029	0.0223	38.7458
5	59.1056	1.3945	0.2540	0.2295	0.1641	0.0245	38.7540
6	59.2266	1.3933	0.2545	0.2067	0.1724	0.0233	38.6845
7	59.0974	1.3092	0.3356	0.1612	0.1722	0.0192	38.6856
8	59.1823	1.3051	0.2577	0.1934	0.1878	0.0251	38.6977
9	59.2226	1.3998	0.3292	0.1894	0.2124	0.0198	38.6892
10	59.1597	1.3008	0.2634	0.2376	0.1702	0.0188	38.6934
11	59.1491	1.3924	0.2623	0.2145	0.2127	0.0274	38.6823
12	59.0998	1.3027	0.2580	0.2189	0.1325	0.0227	38.7180
13	59.0921	1.3918	0.2963	0.1982	0.1183	0.0218	38.7163
14	59.2279	1.3942	0.2823	0.2284	0.1308	0.0242	38.7323
15	59.2185	1.3097	0.2689	0.2385	0.1624	0.0197	38.7689
16	59.1025	1.3923	0.2991	0.2189	0.1242	0.0223	38.6891
17	59.0931	1.3051	0.3280	0.1989	0.1924	0.0251	38.6980
18	59.2238	1.3078	0.2945	0.2492	0.1182	0.0178	38.6945
19	59.0953	1.3966	0.2946	0.1949	0.1269	0.0266	38.5846
20	59.0978	1.3093	0.3342	0.2205	0.1692	0.0193	38.6942
Average value of content (%) standard	59.1575	1.3507	0.2891	0.2116	0.1678	0.0225	38.7011
Deviation of measurement SD (%) 3s	0.0580	0.0442	0.0294	0.0209	0.0318	0.0038	0.0365
Value	0.1739	0.1327	0.0882	0.0628	0.0954	0.0114	0.1094
Relative standard deviation RSD(%)	0.0010	0.0328	0.1017	0.0990	0.1896	0.1692	0.0009
Maximum value	59.2367	1.3998	0.3378	0.2492	0.2127	0.0296	38.7689
Minimum value	59.0921	1.3008	0.2540	0.1612	0.1182	0.0136	38.5846
Range	0.1446	0.0990	0.0838	0.0880	0.0945	0.0160	0.1843
Content	59.16	1.34	0.287	0.2	0.157	0.021	38.65